



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,537	02/21/2002	Ya'acov Mirsky	005454.00004	3066
22907	7590	04/08/2004	EXAMINER	
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			JOHNSON, EDWARD M	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/078,537	MIRSKY ET AL.	
	<b>Examiner</b> Edward M. Johnson	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 21 January 2004.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-10 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 17 is/are allowed.
- 6) Claim(s) 1,5-10 and 18-24 is/are rejected.
- 7) Claim(s) 2-4 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

**Claim Rejections - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Land US 3,841,879.

Regarding claim 1, Land '879 discloses a method for making silica-containing titanium dioxide comprising providing titanium dioxide (see abstract and column 2, lines 27-30) and reacting with silica sol under conditions to prevent agglomeration (see column 6, lines 1-10), drying (see column 6, lines 25-34 and column 5, lines 27-37), a pH of 10-12 (see column 5, lines 22-26), at 24 degrees Celsius (see column 5, line 50), and adding as solution (see column 10, lines 63-66).

Regarding claim 5, Land '879 discloses preventing agglomeration by treatment with sodium ions (see column 6, lines 3-5) and a pH above 12 (see column 5, lines 19-36).

Art Unit: 1754

Regarding claims 6-7, Land '879 discloses dry blended titanium dioxide and adding as solution (see column 10, lines 63-66).

3. Claims 1 and 5-7 are rejected under 35 U.S.C. 102 (b) as being anticipated by Nakahara et al. US 5,139,980.

Regarding claim 1, Nakahara '980 discloses a method for production of silica-titania particles (abstract, Example 8) comprising producing a titania starting material and reacting with a silica sol (see Example 8 and column 4, lines 11-15) under conditions which prevent coagulation using ammonia (see Example 8).

Regarding claim 5, Nakahara '980 discloses treatment with ammonia (see Example 8).

Regarding claims 6-7, Nakahara '980 discloses a mixed slurry solution (see Example 8).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 1754

5. Claims 8-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Land '879.

Land '879 discloses a method for making silica-containing titanium dioxide comprising providing titanium dioxide (see abstract and column 2, lines 27-30), any other ingredient of which may be considered a filler, and reacting with silica sol under conditions to prevent agglomeration (see column 6, lines 1-10), drying (see column 6, lines 25-34 and column 5, lines 27-37), and dry blended titanium dioxide and adding as solution (see column 10, lines 63-66).

6. Claims 8-10 and 18-24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakahara '980.

Nakahara '980 discloses a method for production of silica-titania particles (abstract, Example 8), any other ingredient of which may be considered a filler, comprising producing a titania starting material and reacting with a silica sol (see Example 8 and column 4, lines 11-15) under conditions which prevent coagulation using ammonia (see Example 8), and a mixed slurry solution (see Example 8).

13. In the event any differences can be shown for the product of the product-by-process claims 8-10 and 18-24, as opposed to

the product taught by Land '879 and/or Nakahara '980, such differences would have been obvious to one of ordinary skill in the art at the time the invention was made as a routine modification of the product in the absence of a showing of unexpected results; see also In re Thorpe, 227 USPQ 964 (Fed.Cir. 1985).

***Allowable Subject Matter***

7. Claim 17 is allowed.
8. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter: It would not have been obvious to one of ordinary skill in the art at the time the invention was made to dissolve a precursor of a second alkaline agent in the solution, causing generation of a second alkaline agent, to precipitate titanium hydroxide in the process of the instant claim 2.

***Response to Arguments***

10. Applicant's arguments filed 1/21/04 have been fully considered but they are not persuasive.

It is argued that there is no indication that a silicon-containing titanium dioxide... processing composition. This is not persuasive because in the previous paragraph Applicant appears to admit that all the claimed reactants are combined "in solution". Land also discloses reducing to a pH of less than 10-12 (see column 5, lines 22-26), at 24 degrees Celsius (see column 5, line 50), and adding as solution (see column 10, lines 63-66), which would inherently be at a temperature low enough to avoid evaporation.

It is argued that Land belongs to entirely different field... this application. This is not persuasive because Land discloses silicon-containing titanium dioxide as claimed.

It is argued that Nakahara's method does not include a step... recited in claim 1. This is not persuasive because Nakahara discloses the inorganic seed particles can be titanium dioxide and silicon oxide (see column 3, lines 51-55).

It is argued that the Office Action cites Nakahara's... of claim 1. This is not persuasive for the reasons above.

It is argued that Nakahara not only teaches an entirely different method... themselves are different. This is not persuasive because Nakahara discloses 3.4% silica (see Example 2).

**Conclusion**

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman

Art Unit: 1754

can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0987.

EMJ



STANLEY S. SILVERMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700